

Listing of the claims:

Claims 1-61 (Cancelled)

62. (Allowed: Previously Presented) An isolated UDP-N-Acetylglucosamine: Galactose- β 1,3-N-Acetylglactosamine- α -R β 1,6 N-Acetylglucosaminyltransferase (C2GnT) polypeptide comprising the amino acid sequence of residues 39-453 of SEQ ID NO: 2.
63. (Allowed: Previously Presented) The isolated C2GnT polypeptide of claim 62, comprising the amino acid sequence of SEQ ID NO:2.
64. (Allowed: Previously Presented) The isolated C2GnT polypeptide of claim 62, having the amino acid sequence of SEQ ID NO:2.
65. (Currently amended) An isolated C2GnT polypeptide having glycosyltransferase activity and at least 45% 80% amino acid sequence identity to the amino acid sequence of SEQ ID NO: 2.
66. (Currently amended) The isolated C2GnT polypeptide of claim 65, wherein said amino acid sequence identity is at least 60% 90%.
67. (Allowed: Previously Presented) The isolated C2GnT polypeptide of claim 65, wherein said amino acid sequence identity is at least 95%.
68. (Currently amended) An isolated C2GnT polypeptide having having glycosyltransferase activity and at least 45% 80% amino acid sequence identity to a human C2GnT enzyme which is expressed *in vivo* at a higher level in thymus tissue than in tracheal and thyroid tissue.
69. (Currently amended) The isolated C2GnT polypeptide of claim 68, wherein said amino acid sequence identity is at least 60% 90%.
70. (Allowed: if rewritten in independent form; Previously Presented) The isolated C2GnT polypeptide of claim 68, wherein said amino acid sequence identity is at least 95%.

{W:\04305\100G031US2\00130206.DOC 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 }

71. (Allowed: Previously Presented) An isolated polypeptide having at least 95% amino acid sequence identity to SEQ ID NO:2 and C2GnT enzymatic activity.
72. (Currently amended) A C2GnT polypeptide produced by a method comprising:
- (i) introducing into a host cell an isolated DNA molecule encoding a human C2GnT polypeptide, or a DNA construct comprising a DNA sequence encoding a C2GnT polypeptide;
 - (ii) growing the host cell under conditions suitable for human C2GnT expression; and
 - (iii) isolating C2GnT polypeptide produced by the host cell,
- wherein said C2GnT polypeptide has glycosyltransferase activity and is at least 45% 80% identical to SEQ ID NO:2.
73. (Currently amended) The C2GnT polypeptide of claim 72, wherein said C2GnT polypeptide is at least ~~60%~~ 90% identical to SEQ ID NO:2.
74. (Allowed: Previously Presented) The C2GnT polypeptide of claim 72, wherein said C2GnT polypeptide is at least 95% identical to SEQ ID NO:2.
75. (Withdrawn) A method for preparing an oligosaccharide comprising contacting a compound comprising an activated GlcNAc, an acceptor, and the C2GnT polypeptide of any of claims 62, 65, 68, 71, and 72.
76. (Withdrawn) A method for preparing an oligosaccharide comprising contacting a compound comprising an activated GlcNAc, an acceptor, and a C2GnT polypeptide comprising the amino acid sequence of residues 39-453 of SEQ ID NO: 2.
77. (Withdrawn) The method of claim 76, wherein the C2GnT polypeptide comprises the amino acid sequence of SEQ ID NO:2.
78. (Withdrawn) The method of claim 76, wherein the C2GnT polypeptide has the amino acid sequence of SEQ ID NO:2.

{W:\04305\100G031US2\00130206.DOC }